GOFMAN, G.Ye., prof.; LYZIKOV, N.F., kand.med.nauk.

Work of the women's clinic. Zdrav. Belor. 4 no.2:52-55 F '58.
(MIRA 13:8)

1. Iz akushersko-ginekologicheskoy kliniki Vitebskogo meditsinskogo
instituta.
(VITEBSK—HOSPITALS, GYNECOLOGIC AND OBSTETRIC)

LYZIKOV, N.F., dotsent

Causes and prevention of stillbirth. Zdrav. Bel. 9 no.1:
66-68 J'63.   (MIRA 16:8)

1. Iz kafedry akusherstva i ginekologii (ispolnyayushchiy
obyazannosti zaveduyushchego - dotsent N.F.Lyzikov) Viteb-
skogo meditsinskogo instituta.
                    (STILLBIRTH)

LYZIKOV, N. F.

Lyzikov, N. F.

"The use of sintomycin emulsion to prevent ophthalmoblennorrhes or newborn children." Minsk State Medical Inst. Minsk, 1956. (Disser:ation for the Degree of Candidate in Medical Sciences).

Knizhnaya letopis'
No. 21, 1956. Moscow.

GOFMAN, G.Ye.; LYZIKOV, N.F., kand.med.nauk

Observation on the use of synthomycin emulsion for the prevention of ophthalmia neonatorum. Zdrav. Belor. 5 no.10:38-40 O '59.

(MIRA 13:2)

1. Iz kafedry akusherstva i ginekologii (zaveduyushchiy kafedroy - prof. G.Ye. Gofman) Vitebskogo meditsinskogo instituta.
    (CHLOROMYCETIN)   (CONJUNCTIVITIS, INFANTILE)

LYZIKOV, N.F., kand.med.nauk; ZHOLNEROVSKIY, M.G.

Significance of toxoplasmosis in the pathology of the fetus.
Zdrav.Belor. 5 no.1:26-29 Ja '60.   (MIRA 13:5)

1. Iz kafedry akusherstva i ginekologii (zaveduyushchiy - professor
G.Ye. Gofman) Vitebskogo meditsinskogo instituta.
             (TOXOPLASMOSIS)   (FETUS--DISEASES)

LYZIKOV, N.F., dotsent; ROSHCHINA, T. Ya., klinicheskiy ordinator;
GORODETSKAYA, L.V.; SMETANINA, T.P.

Prevention of premature labor. Zdrav. Bel. 9 no.7:12-15 Jl'63

1. Iz kafedry akusherstva i ginekologii (zav. - dotsent N.F.
Lyzikov) Vitebskogo meditsinskogo instituta (rektor - prof.
G.A. Medvedeva).

GOLENDBERG, A.D.; YEVTIKEYEVA, M.I.; GLAZKOVA, Ye.I.; DUDKOVA, ...;
    OSTEYAKOVA, A.N.

    Our experience in microwave therapy. ... Kur. Fiz. ter.
    lech. Fiz. kul't. 30 no.1:45-47 Jan-F '65.   MIRA ...

    1. Balneofizioterapevticheskiye stanitsiva i ... sanat.
    V.I. Lenina (glavnyy vrach K.A. Chel zentseva), Leningrad.

LYZIN, A. A.

24117   LYZIN, A. A. Primeneniye udobreniy na chernozemnykh pochvakh pri oroshenii.
V sb: Nauch. otchet Bezenchuksk. Selekts.-opyt. Stantsii po agrotekhnike
oroshayemogo zemledeliya za 1935-1947 gg. (Kuybyshev). 1949, S. 52-65.

SO: Letopis, No. 32, 1949.

51

14027*   The Influence of the Ratio of Organic Fertilizer to Superphosphate in Granules and of Size of Granules on Yield of Spring Wheat. (Russian.) A. A. Lyzin. Sovetskaia Agronomiia, v. 10, Mar. 1952, p. 22-24

Field tests were made in 1950 and 1951 on the above. Data are tabulated.

LYZIN, A. A.

Fertilizers and Manures

Effect of granulated su er[?] ate n[?] or anicmineral granules on winter [?] [?] yi l[?] under irrigation. Sov. agron. 11 No. 3, 1953.

9. **Monthly** **List** **of** **Russian** **Accessions**, Library of Congress,   June   1953, Unclassified.

USSR.

The influence of compost and organic-mineral fertilizer on the yield of spring wheat and sugar beets under conditions of irrigation. A. A. Lykin (State Complex Exptl. Sta. Bezenchak, Kuibyshev). *Mikrobiologiya* 1954, No. 4 (Whole No. 88), 71–4.—Mixts. of phosphorites in quantities of 10% of composts gave good response when 60 kg. P_2O_5/ha. were added. Mixts. of manure and superphosphate, or with ash and superphosphate, were also very effective.   J. S. Joffe

L 1658-66   EWT(1)/EWP(m)/EWA(d)/FCS(k)/EWA(1)

AUTHOR: Lyzhin, O. V. (Moscow)

TITLE: Throttling devices in a compressible gas stream

SOURCE: Inzhenernyy zhurnal, v. 5, no. 4, 1965, 641-649

TOPIC TAGS: gas flow, compressible flow, throttling valve, pressure loss coefficient

ABSTRACT: An approach for calculating the pressure loss coefficient

$$\zeta = \frac{p_{01} - p_{02}}{1/2\, \rho_1 V_1^2}$$

or the total pressure ratio $\nu = \dfrac{p_{02}}{p_{01}}$

of a throttling device in a compressible gas stream is presented. After reasoning that ν is independent of Re, Pr, and x (adiabatic index), the relation

$$\nu = \nu(\overline{S}, M) \quad \text{or} \quad \nu = \nu(\overline{S}, \lambda)$$

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L 1658-66

ACCESSION NR: AP5021527

is obtained (where $\bar{S} = S/S_{max}$ is the relative throttle position, $\lambda = W/a_*$, $a_* =$ critical flow velocity). For a given throttle, the characteristics can be plotted conveniently as $v = f(\bar{S})$ for different values of λ_2 (at discharge end). The application of these curves is demonstrated by determining how a throttle with a given characteristic has to be actuated to provide constant downstream pressure for a decreasing upstream pressure (as from an accumulator), and, conversely, the necessary throttle characteristics are evaluated for a constant downstream pressure if the throttle actuator provides linear motion. A particular throttle geometry with an internal sleeve restriction (see Fig. 1 on the Enclosure) is described as having several advantages over other throttling devices, and its characteristics (experimental and analytical) are presented (see Fig. 2 on the Enclosure). The derivation of the characteristic equations is based on the flow pattern shown in Figure 1 which is considered correct since the agreement with experimental results is excellent. Orig. art. has: 8 figures and 23 formulas.

ASSOCIATION: none

SUBMITTED: 15Aug64   ENCL: 02   SUB CODE: ME

NO REF SOV: 000   OTHER: 000
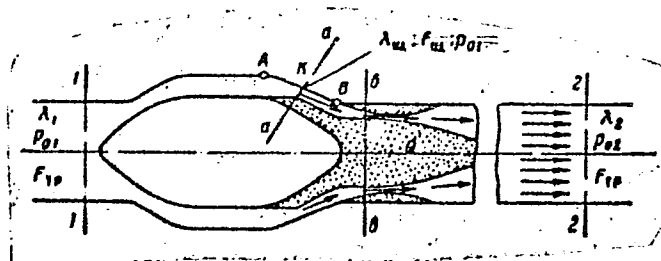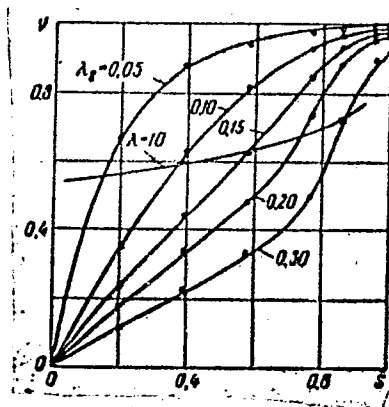
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Fig. 1.
Throttle geometry

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Fig. 2.
Throttle characteristics

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PHASE I BOOK EXPLOITATION   SOV/2844

28(1)

Gal'perin, V.G., and O. V. Lyzhin

Gazodinamicheskiy raschet aerodinamicheskikh trub bol'shikh skorostey
(Aerodynamic Analysis of High-speed Wind Tunnels) /Moscow/ Izd-
vo byuro novoy tekhniki, 1948, 22 p. (Series: Tsentral'nyy
aero-gidrodinamicheskiy institut. Tekhnicheskiye otchety) No.
of copies printed not given.

Sponsoring Agency: Ministerstvo aviatsionnoy promyshlennosti SSSR.

Ed.: B. A. Ushakov.

PURPOSE: This book is intended for scientists and engineers con-
cerned with gas dynamics and the design of high-speed wind
tunnels.

COVERAGE: The book describes a method for aerodynamic analysis of
wind tunnels of high subsonic and supersonic speeds based on the
equations of one-dimensional gas flow, expressed through the
stagnation parameters. The book presents the calculation of the
variation of speed, pressure, and other flow parameters in various

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Aerodynamic Analysis (Cont.)   SOV/2844

sections of the wind tunnel as a function of the speed in the test section. The use of an ejector pump for regulating the flow velocity in a supersonic wind tunnel is discussed. A method is given for the analysis of various types of wind tunnels for short-duration operation (blow-down wind tunnels). No personalities are mentioned. There are 10 references, all Soviet.

TABLE OF CONTENTS: None given /book is divided as follows:/

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Aerodynamic Analysis (Cont.)   SOV/2844

6. Use of an Ejector Pump for Regulating the Flow Speed in a   13
    Supersonic Wind Tunnel

                                                                       16
7. Calculation of a Blow-down Wind Tunnel

AVAILABLE: Library of Congress   IS/ec
                                                                  11-16-59
Card 3/3

URVANTSOV, Lev Alekseyevich, kand. tekhn. nauk; TIMOFEYEV, Ye.I.,
kand. tekhn. nauk, retsenzent; LYZHIN, O.V., inzh., red.;
BYSTRITSKAYA, V.V., red. izd-va; EL'KIND, V.D., tekhn.
red.

[Gas erosion of metals; general information, methods of study
and protection] Gazovaia eroziia metallov; obshchie svede-
niia metody izucheniia i zashchity. Moskva, Mashgiz, 1962.
137 p.   (MIRA 15:4)
                         (Erosion of metals)

YARKOVSKIY, Eduard[Jarkovsky, Eduard]; ZHUKOV, A.A., inzh.[translator];
        LYZHIN, O.V., inzh., red.; MAKAROVA, L.A., tekhn. red.;
        SMIRNOVA, G.V., tekhn. red.

    [Fundamentals of practical calculations of diaphragms,
    metering nozzles, and Venturi tubes]Osnovy prakticheskikh
    reschetov diafragm, mernykh sopel i trub venturi. Izd.2.,
    perer. i dop. Pod red. O.V.Lyzhina. Moskva, Mashgiz,1962.
    314 p.   (MIRA 16:3)
                (Flowmeters)

LYZHIN, O.V. (Moscow)

"Throttle arrangements in compressible gas flow".

report presented at the 2nd All-Union Congress on Theoretical and Applied
Mechanics, Moscow, 29 Jan - 5 Feb 64.

LYZHIN, O. V.   (Moscow)

"Throttle to Control the Mass Flow in Wind Tunnels Operating Continuously."

report presented at the First All-Union Congress on Theoretical and Applied
Mechanics, Moscow, 27 Jan - 3 Feb 1960.

KONIKOV, A.S.; PLATONOVA-CHERNYSHEVA, L.V.; DEGTYAREVA, A.N.;
    LYZHINA, G.M.

Study of physiologically active substances in animal and plant
tissues. Report No.6. Uch. zap. Kras. gos. ped. inst. 15:195-200
'59.   (MIRA 14:12)
                   (Tissue extracts) (Respiration)

AUTHOR: Lyzina, L.A.   Sov/51-4-4-11/24

TITLE: On the Method of Production of Solid Layers of Dyes by
         Precipitation from Solutions and on Corrections for Reflection
         in Measurement of Absorption of these Layers (O metodike
         polucheniya tverdykh sloyev krasiteley osazhdeniyem iz
         rastvorov i vnesenii popravok na otrazheniye pri izmerenii
         pogloshcheniya etikh sloyev)

PERIODICAL: Optika i Spektroskopiya, 1958, Vol IV, Nr 4, pp 501
              - 505 (USSR).

ABSTRACT: The author describes a method of production of uniform
         layers of dyes with reproducible properties suitable for
         spectrophotometry. In this method, a base on which the layer
         is to be produced is attached to a vertical axis of an electric
         motor. A small amount of the solution of a dye is placed at
         the centre of rotation of the base and this solution spreads
         on the base due to the latter's motion. The solvent (such as
         ethyl alcohol, acetone, chloroform, ether, etc.) is rapidly
         evaporated and a uniform layer of the dye is produced on the
         rotating base. By variation of the rotational speed of the
         base, the rate of drying may be varied from tenths to tens of
         seconds. Figure 1 gives an example of reproducibility of an
Card1/4 absorption curve of three layers of rhodamine B deposited on

Sov/51-4-4-11/24

On the Method of Production of Solid Layers of Dyes by Precipitation from Solutions and on Corrections for Reflection in Measurement of Absorption of these Layers

quartz. The concentration of the solutions used was varied from 10^{-4} to 5×10^{-2} mol/litre. The absorption obtained by spectrophotometric measurements of solid layers of dyes is affected by selective reflection at the air-dye interface. This reflection may reach 20-25% and it may distort the measured absorption curve. The author describes a method of correction for this reflection. Figure 3 shows the absorption for rhodamine B; Curve 1 shows the measured and Curve 2 the true absorption. Similar curves are given in Figure 4 for quinoline blue. These two figures show that the absorption curve shape is not affected by reflection, but the measured values are about 8-10% higher than the true values. For rhodamine B, the ratio of the long-wavelength absorption maximum to a similar maximum at short wavelengths is not affected by reflection at the layer surface. For quinoline blue the ratio of these maxima is lowered from 0.98 to 0.84. The distortions in the absorption spectrum due to reflection at the dye layer surface increase with decrease of the layer thickness. An example of

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On the Method of Production of Solid Layers of Dyes by Precipitation
from Solutions and on Corrections for Reflection in Measurement of
Absorption of these Layers

      this behaviour is shown in Figure 5. This figure shows
      absorption spectra of two layers of malachite green pro-
      duced from alcohol solutions of different concentrations.
      The Absorption Curves 1 and 3 were obtained without taking
      reflection into account. These curves represent layers
      of different thicknesses and they differ considerably from
      one another. Curves 2 and 4 were obtained from Curves 1
      and 3, respectively by correcting for reflection. In spite
      of this correction, Curves 2 and 4 still show some important
      differences. The method of correction for reflection
      described in this paper may be used also to determine the
      coefficients of reflection at the air-dye and dye-base
      interfaces and dependence of these coefficients on the

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Sov/51-4-4-11/24

On the Method of Production of Solid Layers of Dyes by Precipitation
from Solutionsand on Corrections for Reflection in Measurement of
Absorption of these Layers

> conditions of preparation of the dye layer. The method
> described cannot be used when interference effects are
> present.
> There are 5 figures and 3 references, 2 of which are
> Soviet and 1 Soviet and German.

ASSOCIATION: Gosudarstvennyy opticheskiy institut im. S.I. Vavilova
                 (State Optical Institute imeni S.I. Vavilov)

SUBMITTED: August 27, 1957

                 1. Dyes--Optical properties

Card 4/4

AUTHOR: Lyrina, L.A.

SOV/51-5-3-10/21

TITLE: On the Absorption Spectra of Solid Layers of Dyes, Produced by
Deposition from Solution (O spektrakh pogloshcheniya tverdykh sloyev
krasiteley, poluchennykh osazhdeniyem iz rastvorov)

PERIODICAL: Optika i Spektroskopiya, 1958, Vol 5, Nr 3, pp 286-289 (USSR)

ABSTRACT: The author investigated dependence of the absorption by
solid layers of dyes on the concentration of the original solution
and solvent from which the layers were produced, the rate at which
the layer was deposited, the temperature and nature of the substrate.
To prepare these layers volatile solvents (such as ethyl alcohol,
acetone, chloroform, dichloroethane) were used. The dye concentration
in solution was from 0.05 to 0.0005 mole/litre. Layers with
reproducible properties were prepared by deposition of a dye on a
rapidly rotating substrate. Thickness of the layers was from 0.08 to
0.50 μ. Plane-parallel plates of quartz glass or crystals of NaCl
KCl, LiF, and CaF$_2$ were used as substrates. The experiments showed
that, depending on conditions of preparation, either specularly
reflecting or diffusely reflecting ("velvet") layers could be obtained.

On the Absorption Spectra of Solid Layers of Dyes, Produced by Deposition from Solution

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Which type of layer was obtained depended on the ratio of the forces of mutual interaction of the dye molecules to the forces of adsorption of dye molecules on the substrate. Rhodamine B, Bengal rose, eosin. malachite green and crystal violet layers are usually obtained in the specularly reflecting form. Auramine, erythrosine, patent blue, methylene blue and quinoline blue layers could be both specularly and diffusely reflecting. Layers of quinoline blue were of the "velvet" (diffusely reflecting) type when prepared from alcohol and sometimes from acetone solutions on plates of glass, quartz, NaCl and KCl. If fluorite was used as the substrate specularly reflecting layers could be obtained from acetone and alcohol solutions. If quinoline blue was dissolved in chloroform or dichloroethane the layers were always specularly reflecting. The spectral properties of the specularly reflecting and "velvet" layers were different. In Fig 1 curves 1, 2, 3 show the absorption spectra of the "velvet" layers of quinoline blue. while curve 4 shows the absorption spectrum of a specularly reflecting layer. In "velvet" layers a new absorption maximum, at 710, 640, and 670 mµ for curves 1, 2, 3 respectively, was observed. The curve of the specularly reflecting layer has absorption maxima at 580 and 630 mµ (Fig 1, curve 4). Curves 5 and 6 in Fig 1 represent the absorption

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On the Absorption Spectra of Solid Layers of Dyes, Produced by Deposition from Solution

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spectra of solutions of quinoline blue in alcohol and benzene respectively. With increase of the dimensions of quinoline blue particles in the deposited layer the absorption maximum, characteristic of the "velvet" type of layer, is displaced towards longer wavelengths. Similar changes occur in the ultraviolet region (e.g. bands with maxima at 390 and 435 mμ in curves 3 and 4). Depending on the particle dimensions in the layer the colour of layers varies from blue to green and yellow. Particles of quinoline blue were found to be amorphous. Similar layers exhibiting diffuse reflection were obtained for erythrosine. For methylene blue, patent blue and auramine the layers were found to consist of crystalline particles. Formation of these particles produced a band in the visible region, whose maximum lies at shorter wavelengths than the maxima of the fundamental absorption band. The fundamental absorption band of specularly reflecting layers, which lies in the visible region is of the same general form as the fundamental band in solutions. Fig 2 shows the absorption spectra of layers (curves 1, 2) and solutions (curves 3, 4, 5) of rhodamine B. Fig 3 shows the absorption spectra of rhodamine B

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On the Absorption Spectra of Solid Layers of Dyes. Produced by Deposition from Solution

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layers on various substrates (1 - on quartz, 2 - on KCl, 3 - on NaCl, 4 - on glass which interacted weakly with the dye molecules). Figs 2 and 3 show that the fundamental absorption maximum is displaced towards longer wavelengths in dye layers with specular reflection compared with the fundamental maximum of dye solutions. This displacement is due not only to the mutual interactions of the dye molecules on solidification, but also due to the effect of the substrate Deposition on a crystal substrate displaces the long-wavelength maximum more (curves 1, 2, 3 in Fig 3) than deposition on a glass substrate (curve 4, Fig 3). This indicates a stronger interaction between the dye molecules and the substrate, if the latter is a crystal. Similar displacement of the long-wavelength maximum in layers deposited on crystal substrates was observed for malachite green, eosin and Bengal rose. No displacements were observed in the ultraviolet region. It was found that the substrate temperature (from 20 to 80°C) during the process of deposition did not affect greatly the properties of the specularly reflecting layers. The authors thank V. Savost'yanova and A.T. Vartanyan for their advice. There are 3 figures and

On the Absorption Spectra of Solid Layers of Dyes Produced by Deposition from
Solution

      6 references. 4 of which are Soviet.

ASSOCIATION: Gosudarstvennyy opticheskiy institut im. S.I. Vavilova (State
      Optical Institute imeni S.I. Vavilov)

SUBMITTED: October 14, 1957

Card 3/3   1. Dyes--Spectrographic analysis   2 Dyes--Adsorption
      3. Dyes--Properties

SOV/51-5-4 11/21

AUTHOR: Lyzina, L.A.

TITLE: On the Spectral Properties of Solid Colloidal Layers of Dyes
             (O spektral'nykh svoystvakh tverdykh kolloidnykh sloyev krasiteley)

PERIODICAL: Optika i Spektroskopiya, 1958, Vol 5, Nr 4, pp 428-434 (USSR)

ABSTRACT: Dye layers may be, depending on the conditions of decomposition,
             specularly reflecting or diffusely scattering ("velvet"), when viewed
             at an oblique angle. The absorption spectra of diffusely scattering
             layers of four dyes were measured. The dyes were: quinoline blue
             (quinoline type), erythrosine (xanthene type), methylene blue
             (thiazine type) and patent blue, made by Agfa (triphenylmethane type).
             The layers were prepared by evaporation from a solution in alcohol
             acetone, chloroform, etc., on a rapidly rotating quartz or other
             substrate (Ref 2). The absorption spectra were measured using a
             SF-4 spectrophotometer. No corrections were made for reflection so
             that all figures represent only optical densities. The absorption
             spectra of quinoline blue are shown in Fig 1; curve 1 represents a
             specularly reflecting (mirror) layer, curves 2-5 represent diffusely
Card 1/3   scattering layers. The latter layers consist of colloidal particles

On the Spectral Properties of Solid Colloidal Layers of Dyes

visible under a microscope (Fig 2).   The colloidal layers exhibit an
absorption maximum which shifts towards longer wavelengths with increase
of colloidal particle size.   The properties of quinoline blue layers
depend on the solvent used (in chloroform and dichloroethane mirror
layers are always produced), the nature of the substrate (alcohol
solutions on quartz produce "velvet" layers, but on fluorite mirror-type
layers are obtained - see Figs 4, 5), the rate of evaporation and the
substrate temperature. If a "velvet" layer of quinoline blue is
lightly rubbed with cotton wool it acquires spectral characteristics of
a mirror layer (Fig 6, curves 1a, 2a before,and curves 1b 2b after
rubbing). A similar effect on rubbing is exhibited by erythrosine
layers (Fig 7, curve 1 - a mirror layer; curves 2, 3 - "velvet" layers,
curve 4 - a "velvet" layer after rubbing). Properties of the erythrosine
layers were not affected by the nature of the substrate The colloidal
("velvet") layers of both quinoline blue and erythrosine exhibited always
absorption maxima which were additional to those present in mirror layer
Diffusely scattering layers of methylene blue and patent blue were found
to consist of microcrystallites. The absorption spectra of the diffusely
scattering layers of methylene blue (Fig 8, curves 2-4) and patent blue
(Fig 8, curve 6) exhibit maxima at wavelengths shorter than the maxima

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On the Spectral Properties of Solid Colloidal Layers of Dyes

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   of the mirror layers (Fig 1, curves 1 and 5 for methylene blue and
   patent blue respectively). The authors thank M.V. Savost'yanova
   and A.T. Vartanyan for their interest. There are 8 figures and
   5 Soviet references.

ASSOCIATION: Gosudarstvennyy opticheskiy institut im. S.I. Vavilova (State
   Optical Institute imeni S.I. Vavilov)

SUBMITTED: January 14, 1958

Card 3/3 1. Dyes--Spectra 2. Dyes--Properties 3. Spectrophotometers
   --Applications

AUTHORS: Lyzina, L.A. and Vartanyan, A.T.   SOV/51-6-2-8/40

TITLE: Absorption Spectra of Dye Layers in Vacuum (Spektry pogloshcheniya sloyev krasiteley v vakuume)

PERIODICAL: Optika i Spektroskopiya, 1959, Vol 6, Nr 2, pp 172-180 (USSR,

ABSTRACT: The paper describes a technique for production of solid layers of dyes by sublimation and subsequent measurement of their absorption spectra in vacuum. A special glass cell shown in Fig 1a, was used to prepare dye layers and to measure their spectra. A solid layer of dye was deposited from solution in a cup-like extension O (Fig 1b). A fused quartz plate P was placed above the extension O. The cell was held horizontally, evacuated and the dye layer in O was heated externally by means of a small electric furnace. This produced a sublimated layer on P. The cell was then placed in a vertical position (Fig 1a or 1b) and the plate P dropped to the position 1 in Fig 1a, where two quartz windows were provided. Dimensions of the cell were such that it fitted exactly in the holder of a SF-4 spectrophotometer, which was used for measurements. Measurements were carried out with the cell still evacuated and immediately after deposition of a dye layer. In sublimation of dyes the authors used Vartanyan's data (Ref 3). They

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Absorption Spectra of Dye Layers in Vacuum

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found that to avoid overheating the initial, deposited from solution, layer of a dye should, in general, be thin and uniform; only rhodamine B layers should be thick. It was not possible to obtain an undecomposed layer of malachite green using the cell shown in Fig 1. Best results were produced by rapid sublimation. To check that the sublimated layer is free from decomposition products the authors measured absorption in the ultraviolet region which was sensitive to impurities. The absorption spectra of sublimated layers of twelve dyes are shown in Figs 2-7 in the form of optical density curves (thickness of the sublimated layers was not measured and no cor ection was made for reflection). Figs 2-7 show also the spectra of dye layers produced by deposition from solution and spectra of solutions of the same dyes in water, alcohol, benzene etc. For some dyes spectra of sublimated layers measured in air are also given. The curves of Figs 2-7 give the spectra in the visible region; data on absorption in the ultraviolet are given in a table on p 178. Fig 2 shows the spectra of triphenylmethane dyes: (a) fuchsin and (b) crystal violet; curves 1-6 represent, respectively, sublimated layers measured under vacuum, dilute aqueous solutions, concentrated aqueous solutions, alcohol solutions, layers deposited from solution and benzene solutions.

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Absorption Spectra of Dye Layers in Vacuum   SOV/51-b-2-6/3ɔ

Fig 3 shows the spectra of acridine dyes: (a) rhoduline orange and
(b) trypaflavine; curves 1-6 represent, respectively, sublimated layers
measured under vacuum, dilute aqueous solutions, concentrated aqueous
solutions, alcohol solutions, sublimated layers measured in air, layers
deposited from solution. Fig 4 shows the spectra of azine dyes:
(a) phenosafranine and (b) safranine O; curves 1-6 represent, respectively,
sublimated layers measured under vacuum, dilute aqueous solutions,
concentrated aqueous solutions, alcohol solutions, layers deposited
from solutions and benzene solutions. Fig 5 shows the spectra of
xanthane dyes: (a) pyronine and (b) rhodamines 6G and B; curves 1-5
represent, respectively, sublimated layers measured under vacuum, dilute
aqueous solutions, concentrated aqueous solutions, alcohol solutions,
layers deposited from solution. Fig 6 shows the spectra of auramine O;
curves 1-4 represent, respectively, sublimated layers measured under
vacuum, aqueous solutions, alcohol solutions, layers deposited from
alcohol solution. Fig 7 shows the spectra of thiazine dyes: (a)
thionine and (b) methylene blue; curves 1-5 represent, respectively,
sublimated layers measured under vacuum, dilute aqueous solutions,
concentrated aqueous solutions, alcohol solutions, sublimated layers
measured in air. Fig 8 shows the dependence of the absorption of

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Absorption Spectra of Dye Layers in Vacuum

auramine O on the solution concentration: (a) alcohol solutions
(b) dichloroethane solutions. In all the twelve dyes absorption by
sublimated layers measured under vacuum differs considerably from
absorption by layers deposited from alcohol solutions. This difference
is the same in all the dyes considered: in the visible region the
sublimated layers absorb more strongly at longer wavelengths than do
the layers deposited from solution. The converse is true for short
wavelengths in the visible range. The differences may be due to the fact
that the layers deposited from solutions are more continuous than those
prepared by sublimation. Moisture affects strongly the absorption spectra
of sublimated layers; the absorption curves are different for sublimated
layers measured in vacuo and those measured in air (e.g. Fig 5 curves 1
and 5, Fig 7 curves 1 and 5). The spectra of the sublimated layers
measured in vacuo differ also from the spectra of solutions. This
difference is smallest in auramine O spectra, where only some broadening
occurs due to stronger interaction of the dye molecules in the solid
state. In the case of the other dyes the differences between the spectra
of sublimated layers measured in vacuo and the spectra of solutions may

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Absorption Spectra of Dye Layers in Vacuum

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   be due to adsorption forces between the sublimated layers and the quartz
   plates on which they are deposited. There are 8 figures, 1 table
   and 6 references, 5 of which are Soviet and 1 English.

SUBMITTED: March 4, 1958

Card 5/5

24(7), 5(3)   SOV/51-6-4-12/29

AUTHORS: Lyzina, L.A. and Vartanyan, A.T.

TITLE: The Effect of Water Vapour on the Absorption Spectra of Sublimated
              Dye Layers (Vliyaniye parov vody na spektry pogloshcheniya vozognannykh
              sloyev krasiteley)

PERIODICAL: Optika i Spektroskopiya, 1959, Vol 6, Nr 4, pp 484-491 (USSR)

ABSTRACT: In an earlier paper (Ref 1) the authors showed that the absorption
              spectra of sublimated dye layers measured in vacuo differ from the
              spectra of these layers exposed to air.   The differences are due to
              structural changes due to atmospheric water vapour. These changes
              were the subject of an investigation reported in the present paper.
              The method of preparation of sublimated layers and the cell used for
              measurements of their absorption spectra measured under vacuum were the
              same as described in Ref 1.   After the absorption spectra were
              measured in vacuo, water vapour of known vapour pressure was admitted
              into the cell containing samples.   The spectra were then re-measured
              after 20-30 mins from the moment of admission of water vapour. The
              following dyes were investigated: rhoduline orange (Fig 1a),
              trypaflavine (Fig 1б), crystal violet (Fig 2a), fuchsin (Fig 2б),
              phenosafranine (Fig 3a), safranine (Fig 3б), thionine (Fig 4),

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SOV/51-6-4-12/29

The Effect of Water Vapour on the Absorption Spectra of Sublimated Dye Layers

auramine (Fig 5), rhodamine 6G (Fig 6a) and rhodamine B (Fig 6b).
The results obtained are interpreted as follows. The dye layers
prepared by sublimation in vacuo are originally amorphous. In the
presence of water vapour the dyes aggregated to approximately the
same degree as in concentrated aqueous solutions. In some dyes water
vapour induced crystallization (auramine, methylene blue, thionine).
In solid layers of dyes, depending on the external conditions (vacuum,
water vapour), there may exist different types of absorbing centres,
in the form of "free" molecules, molecules affected by the substrate,
aggregated molecules and microcrystallites. The form of the absorption
curves is determined by the proportions of these absorbing centres.
There are 7 figures and 7 references, 5 of which are Soviet and 2 English.

SUBMITTED: April 23, 1958

Card 2/2

LYZINA, L. A.   Cand Phys-Math Sci -- "Study of the state of dyes in solid solutions
by the spectrophotometric method."   Minsk, 1961   (State Belorussian Univ).
(KL, 4-61, 184)

-25-

SZCZECINSKI, Stefan, mgr. inz.; LYZINSKI, Mieczyslaw, mgr. inz.

Lubrication of modern aeronautical turboengines. Techn lotn
17 no.5:138-143 My '62.

TITOVA, A.I., inzh.; Lyzintsev, I.S., inzh.; Ganeyev, R.A., inzh.

Grinding cement in vibration mills with remote control. Bet.
i zhel.-bet. no.4:179-182 Ap '59.   (MIRA 12:6)
        (Remote control) (Crushing machinery)
                    (Cement)

LYZLOV, A.A.

Traffic regulation on extended hauls. Zhel.dor.transp. 42 no.11:62-63 N '60. (MIRA 13:11)

1. Zamestitel' nachal'nika sluzhby dvizheniya Kuybyshevskoy dorogi.
(Railroads—Traffic)

AGLINTSEV, K.K.; KODYUKOV, V.M.; LYZLOV, A.F.; SIVINTSEV, Yu.V.;
        CHUGASOV, A.A., red.; MAZEL', Ye.I., tekhn. red.

    [Applied dosimetry]Prikladnaia dozimetriia. Pod obshchei
    red. K.K.Aglintseva. Moskva, Gosatomizdat, 1962.   246 p.
                                                  (MIRA 16:2)

              (Radiation--Dosage)

Aglintsev, K. K., V. M. Kodyukov, A. F. Lyzlov, and Yu. V. Sivintsev.

Prikladnaya dozimetriya (Applied Dosimetry). Moscow, Gosatomizdat, 1962.
    246 p. 7800 copies printed.   i

Ed. (Title page): K. K. Aglintsev, Professor; Ed.: A. A. Chugasov;
    Tech. Ed.: Ye. I. Mazel'.

PURPOSE: This book is intended for engineers and technicians working in the
    field of atomic energy. It can also be used by students specializing in
    ionizing-radiation dosimetry.

COVERAGE: The physical principles of dosimetry are described, and the
    organization of radiation control in laboratories and enterprises engaged
    in work with ionizing radiation is discussed. No personalities are
    mentioned. There are 30 Soviet references, 10 of which are translations.

Card 1/2

S/123/61/000/011/020/034
A004/A101

AUTHORS: Krishtal, M. A.; Fominykh, I. P.; Lyzlov, B. A.

TITLE: Properties, structure and machinability of malleable cast iron with
              chromium and antimony for fittings

PERIODICAL: Referativnyy zhurnal, Mashinostroyeniye, no. 11, 1961, 3, abstract
              11G18 ("Sb. tr. Tul'sk. mekhan. in-ta", 1960, no. 15, 20-26)

TEXT: An increase in the chromium content of the metal, when alloyed steel
gets into the charge, causes a considerable prolongation of the annealing cycle
and also tool breakage during the working of fittings as a result of insufficient
annealing in the first stage. Investigations showed that a Cr-content of 0.15%
is neutralized by the addition of 0.23% Sb to the cast iron. Cast iron contain-
ing 2.56% C, 1.5% Si, 0.15% Cr, 0.23% Sb, after heating to 960°C for 3 hours,
holding of 15 hours, cooling down to 720°C for 2 hours and holding at this
temperature for 10 hours, had the structure of pearlite malleable cast iron of
the КЧ-54-5 (KCh-54-5) grade. Tests of the machinability showed that in the
time interval between the sharpening of the taps 5-6 times more fittings from
malleable cast iron alloyed with chromium and antimony (HB 170-200) could be

Card 1/2

Properties, structure and machineability ...

S/123/61/000/011/020/034
A004/A101

machined than those of ordinary non-alloyed cast iron.

There are 3 figures.

L. Tumanova

[Abstracter's note: Complete translation]

Card 2/2

LYZLOV, B. A., inzh.

Students should be given knowledge on welding in schools of higher learning. Svar. proizv. no.10:43-44 O '62.
(MIRA 15:10)

(Welding—Study and teaching)

LYZLOV, B   M.

Osnovntye Voprosy Tekhnicheskogo Normiroyaniya. (Basic Problems of Technical
Standardization) Moskva, Gosplanizdat, 1950.
142 p. diagrs., tables.
Deals with increased production of labor, technical norms and their purpose, methods
of standardization in USSR and the "sweat-squeezing system in capitalistic countries.

LYZLOV, I., inzh.

Using high-speed motion-picture photography in research. NTO
2 no.2:30-31 F '60.   (MIRA 13:5)

1. Rukovoditel' gruppy gidrologii "Chernomorproyekta," chlen
Nauchnotekhnicheskogo obshchestva vodnogo transporta, Odessa.
        (Motion pictures in science)

LYZLOV, I.

Studying the phenomena of reversing tidal currents in Black
Sea harbors. Mor.flot 20 no.10:19-20 0'60.   (MIRA 13:10)

1. Rukovoditel' gidrologicheskoy gruppy Chernomorproyekta.
     (Black Sea--Harbors) (Tides)

LYZLOV, I.A.

Experimental investigation of shore-protecting underwater breakwaters of various design. Trudy Okean.kom. 12:5-16 '61.   (MIRA 15:1)

1. Chernomorproyekt.

(Breakwaters)

LYZLOV, I.A., inzh.

Submerged shore-strengthening jetties in the ocean. Transp.
stroi. 12 no.5:42-44 My '62.   (MIRA 15:6)
                        (Shore protection)

1. YAGUP'YEV. G.; LYZLOV, S.

2. USSR (600)

4. Shipbuilding

7. Creative cooperation between scientific workers and factory management, Mor. flot, 12, No. 11, 1952.

9. **Monthly List of Russian Accessions**, Library of Congress, February 1953. Unclassified.

LYZLOV, S. A.

Lyzlov, S. A.   "Improved construction of the Moscow tramway tracks,"
Gor. khoz-vo, Moskvy, 1948, No. 12, pp. 23-27

SO: U-3264, 10 April 53 (Letopis 'Zhurnal 'nykh Statey, No. 4, 1949).

LYZLOV, S.

        Tugboat will not sink.   Izobr. i rats. no.7:10 Jl '62.   (MIRA 16:3)

        1. Predsedatel' basseynovogo soveta Vsesoyuznogo obshchestva
izobretateley i ratsionalizatorov, Leningrad.
                        (Tugboats)

LYZLOV, S.

Outlooks for a streetcar. Za bezop. dvizh. 6 no.10:1-2
O '63.   (MIRA 16:11)

1. Glavnyy inzh. Mosgortransproyekta.

LYZLOV, Semen L'vovich; SAMOYLOVICH, T.A., red.; KLAPTSOVA, T.F.,
    tekhn. red.

[New developments in invention and innovation in the merchant
marine]Novoe v rabote po izobretatel'stvu i ratsionalizatsii
na morskom flote. Moskva, Izd-vo "Morskoi transport," 1962. 49 p.
                                              (MIRA 15:9)
    (Merchant marine--Technological innovations)

_____, Ye. _.

_____ _, Ye. _. -- "_e_ods of _electi__ of _of_ _rin_ _eat _r _ncr_ase
_iel_s of _rain from _e _ke." _o__w _tate _ _r__ _. _. ___ _
_ _, _e_c__, 1_5_.
_ssertat___ for _e _u_rce _f _a_d___te in _i_l___cal _ci_nce_ .

_ : _niz____a _e___is_, _ _, 1_____

LYZLOV, Ye.V., kand. biolog. nauk (pochtovoye otdeleniye Podvyaz'ye,
Ryazanskogo rayona, Ryazanskoy obl.); SIL'YANOVA, A.N.,
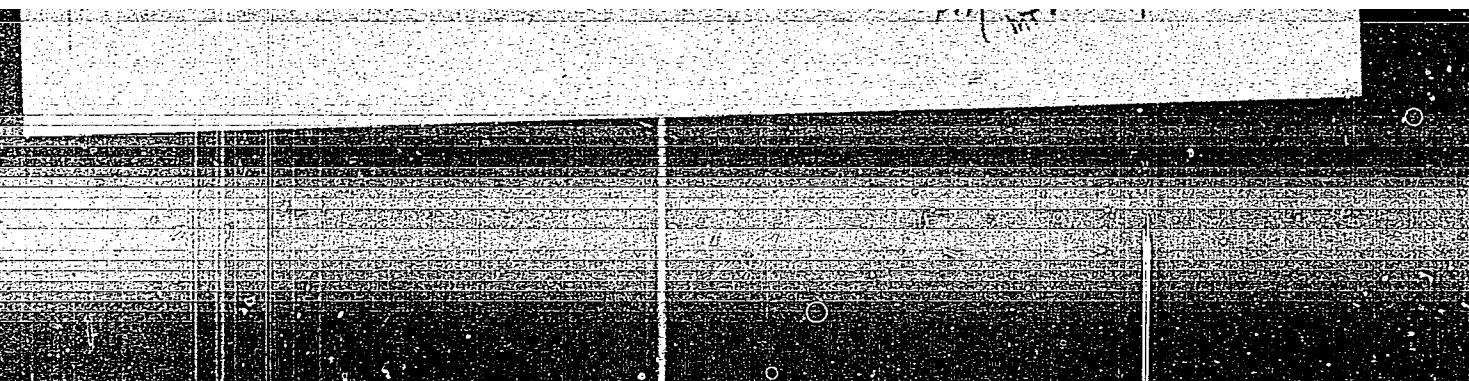starshiy nauchnyy sotrudnik (pochtovoye otdeleniye Podvyaz'ye,
Ryazanskogo rayona, Ryazanskoy obl.)

Controlling loose smuts of wheat. Zashch. rast. ot vred. i
bol. 7 no.12:24-25 D '62.   (MIRA 16:7)

        (Wheat---Diseases and pests)
        (Seeds---Disinfection)   (Smuts)

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76-· 2-18/27

AUTHORS: Lyzlov, Yu.V., Mechkovskaya, T.A., Samartsev, A.G.

TITLE: The Effect of Gelatin on the Formation of Electrolytic Coppe·:
               Deposits (Vliyaniye zhelatiny na obrazovaniye elektrolitiche;kikh
               osadkov medi).

ABSTRACT: The results of observation of the surface of a cathode durirg the
               precipitation of copper from a sulphate of electrolyte to which ge-
               latin was added, are given here by registration of the cathcde-
               potential-change with respect to time. The results should ccntribute
               to the clarification of the still unclear process with the formation
               rf brilliant galvanic deposits. The observation of the micrc-cathode
               surface during the precipitation of copper from the acid coɪper bath
               with an addition of gelatin for imparting brightness was carried out
               by means of a microscope. The observations show the possibility of
               the existence of two various states of the cathode surface. These
               two states can be realized simultaneously under certain conditions.
               In this case, the surface of the cathode is divided into twc parts:
               an active, and a passive range. They apparently are distinguished
Card 1/4   by the properties of the adsorption layers of the colloid covering

The Effect of Gelatin on the Formation of Electrolytic
Copper Deposits

76-12-18/27

them. The formation of a thick layer of adsorption, which is im-
permeable to the discharging ions, requires, due to the low dif-
fusion speed and the not high concentration of the colloid substance
in the solution, a certain time. If the current density is higher
than the critical, then the quick renewal of the surface of the de-
posit prevents the formation of such a layer. The amount of critical
current density required for maintaining the cathode in active state
is determined by the nature of the colloid-substance, its concentra-
tion, and by the conditions under which the electrolysis is carried
out. The formation of an active surface is only possible if the amount
of the critical current density does not exceed the value of the
limiting current for the given electrolyte. With a total current in-
tensity, which does not suffice for maintaining the critical current
density on the whole surface of the cathode, the ranges to which the
access of colloids is facilitated,(e.g. due to convection currents)
is passive. The passivity lasts as long as the current density in
the ranges preserving the activity does not attain the critical
value. A further passivity prevents the increasing polarization of
concentration. The metal deposit on the passive surface is apparently

Card 2/4

The Effect of Gelatin on the Formation of Electrolytic
Copper Deposits

75-12-18/27

a totality of a great number of processes independent from each
other. The depositions of the metal cn the passive surface take
place in various points. The microscopic projections developing
impart a coarse character to the surface. These rounded projections
are apparently polycrystalline formations. The increase of the de-
posits on the active surface takes a quite different course. Here
the whole surface participates in the electrolysis. The active
surface remains smooth and brilliant independent of the thicknesses
of the deposited metal layer. The deposits point to a lamellar
structure. The layers proceed approximately parallel to the plane
of the surface. All reasons indicate that the formation of the
brilliant copper deposits is in immediate context with the rhythmic
character of the cathode processes depending on the lamellar struc-
ture of the metal. The detailed picture of this phenomena must still
be cleared up. There are 8 figures, and 6 references, 1 of which is
Slavic.

Card 3/4

The Effect of Gelatin on the Formation of Electrolytic
Copper Deposits

76-12-18/27

SUBMITTED: October 4, 1956

AVAILABLE: Library of Congress

Card 4/4

SOV/81-59-10-35303

Translation from: Referativnyy zhurnal. Khimiya, 1959, Nr 10, p 276 (USSR)

AUTHOR: Lyzlov, Yu.V.

TITLE: Methods for Speed-up Corrosion Tests of Materials and Products of the Optical Industry Under Conditions Imitating a Tropical Climate

PERIODICAL: Sb. Kom-t po korrozii i zashchite metallov Vses. sov nauchno-tekhn o-v 1958, Nr 3, pp 39-41

ABSTRACT: The tests of samples of metals and protective coatings and also parts of optical devices designed for work under conditions of tropical climate, S were carried out in a corrosion chamber manufactured from organic glass with a capacity of 0.2 m³. The following conditions were observed: the samples were kept for 50 min in an atmosphere with a relative humidity of 100% at 50°C, then dry air was blown through the chamber for 10 min (5 min with air heated to 40 - 45°C for drying the samples and 5 min with air of room temperature for cooling the samples). The duration of one cycle is 1 hour, the number of cycles is 150 - 200. The chamber operates automatically by means of a programming mechanism. For testing finished devices

Card 1/2   another chamber was employed, in which the products were kept for 8 hours

SOV/81-59-10-35313

Methods for Speed-up Corrosion Tests of Materials and Products of the Optical Industry
Under Conditions Imitating a Tropical Climate

at 40°C and an air humidity of 100%, in the remaining time of the day the chamber was
switched off and left with door open. The duration of the tests varies, depending on
the conditions of operation of the devices, within the range of 15-50 days

Ya. Malin

Card 2/2

5 (4)
AUTHORS: Lyzlov, Yu. V., Samartsev, A. G.

TITLE: Internal Stresses in Electrolytic Copper Deposits
                (Vnutrenniye napryazheniya v elektroliticheskikh osadkakh medi)

PERIODICAL: Zhurnal fizicheskoy khimii, 1959, Vol 33, Nr 6,
                pp 1345-1352 (USSR)

ABSTRACT: As in the electrolytic copper precipitation from acidified
                copper sulphate solutions there are no secondary processes
                (such as a generation of hydrogen), this process is particularly
                favorable for the investigation of the influences of internal
                stress by different admixtures to the solution. Internal
                stresses (IS) were investigated in copper deposits (D)
                obtained from common copper sulphate electrolytes, and with
                admixtures of thiocarbamide (I) and gelatin (II). The (IS)
                were measured by a "contractometer" (Ref 8). Preliminary tests
                showed that the smallest quantities of impurity in the copper
                sulphate exert a strong influence on the (IS) in the copper
                deposit (Table). The electrolytic (D), obtained from
                electrolytes without admixtures, have a compressing stress
                (CS) which decreases with a rise in temperature and a
Card 1/3   reduction in current density. The structural change of (D)

Internal Stresses in Electrolytic Copper Deposits   SOV/70-33-6-27/41

into a disperse grain causes a rise in (IS). Admixtures of
(I) and (II) to the electrolyte effect an increase in (IS)
at small quantities, a reduction of (CS), and a conversion
to tensile stresses (TS) at high quantities of admixtures.
The changes of (IS) by admixtures of (I) and (II) are due to
spatial changes in the structure of (D), i.e. to the
formation of intermediate layers which, by their increase in
size, effect the (TS). As, during the elctrolysis, the area
near the cathode becomes poorer in (I) and (II), an inter-
mixture of the elctrolyte, an increase in temperature and a
reduction of the current density favor a reduction of (CS)
and an increase in (TS) in the (D), as these factors
facilitate the access of (I) or (II) to the cathode. The
so-called "leveling effect" of various electrolytes (Refs 17-21)
is explained by the fact that near such spots where the
diffusion is impeded (cracks, joints, indentation in the
cathode surface) the solution also quickly becomes poorer in
(I) and (II), whereby the current density rises and the metal
deposition increases in these spots. There are 7 figures,
1 table, and 21 references, 8 of which are Soviet.

Card 2/3

Internal Stresses in Electrolytic Copper Deposits   SOV/76-33-6-27/44

SUBMITTED: November 29, 1957

Card 3/3

LYZLOV, Yu. V.

Cand Chem Sci - (diss) "Study of internal stresses in electro-
lytic copper and nickel precipitates and some features of the
formation of copper precipitates in the presence of luminescence-
forming /bleskoobrazyyushchiye/ additions." Leningrad, 1961.
11 pp; (Ministry of Higher and Secondary Specialist Education
RSFSR, Leningrad Order of Labor Red Banner Technological Inst
imeni Lensovet); 150 copies; price not given; (KL, 5-61 sup, 206)

DASOYAN, Martin Avetisovich; DANIEL'-BEK, V.S., kand.tekhn.nauk, retsenzent;
  LYZLOV, Yu.V., red.; TOMASHEVSKIY, F.F., red.; ZHITNIKOVA, O.S.,
  tekhn. red.

[Chemical sources of electric current; a manual] Khimicheskie istoch-
niki toka; spravochnoe posobie. Moskva, Gos.energ.izd-vo, 1961.
349 p.   (MIRA 14:12)
            (Storage batteries)

VAYNER, Ya.V.; DASOYAN, M.A.; YAMPOL'SKIY, A.M., kand. tekhn.nauk,
retsenzent; KAN, V.I., inzh., retsenzent; LYZLOV, Yu.V., kand.
khim. nauk, red.; VARKOVETSKAYA, A.I., red.izd-va; PETERSON,
M.M., tekhn. red.

[Technology of electrochemical coatings]Tekhnologiia elektro-
khimicheskikh pokrytii. Moskva, Mashgiz, 1962. 468 p.
(MIRA 15:12)

(Electroplating)

LYZLOVA, R. V.

USSR/Chemistry - Production Equipment   Mar 52

"The Dependence of the Effectiveness of Filled Rectification Columns on the Height of the Filler, and the Reproducibility of the Effectiveness," I.N. Bushmakin, R. V. Lyzlova, O. I. Avedeyeva, Lenin-grad Order of Lenin State U .

"Zhur Prik Khim" Vol XXV, No 3, pp 287-302

Investigations were conducted with coarse and fine fillers at different heights of filling under pre-liminary wetting to a varying deg by spraying with a jet of reflux (I). The same investigations were carried out under preliminary flooding of the

USSR/Chemistry - Production Equipment   Mar 52
                    (Contd)

column (II). In I, deg of wetting does not influ-ence effectiveness with coarse filling; increases effectiveness (as well as reproducibility) with fine filling. In II, coarse filling yields the same re-sults as in I; fine filling results in differences depending on temp.

207T33

207T33

Lyzlova, R.V.

Effect of dividing a packed rectifying column into sections on its efficiency. IV. I. N. Bushmakin and R. V. Lyzlova. J. Appl. Chem. U.S.S.R. 25, 331-41(1952)(Engl. translation); Zhur. Priklad. Khim. 25, 303-12(1952); cf. preceding abstr.—Working with the same column, packings, and vapor-liquid mixt., as in the above abstr., the authors tried adding inserts at various distances to effect better liquid distribution. Very little improvement in efficiency resulted; at the optimum distance of 35 cm. between inserts, of which the best were truncated cones of wire gauze, the efficiency was increased by 1.5 stages per insert.   A. P. Colburn

LYZLOVA R.V.

U S S R.

Determination of liquid-vapor equilibria with a rectification column. V. L. N. Bushmakin, R. V. Lyzlova, and P. Ya. Molodenko. *J. Appl. Chem.* 1205-12(1958)(Engl. translation).—See *C.A.* 49, 1392g.

H. L. H.

LITVINOVA R. V.

U.S.S.R.

Liquid-vapor equilibria in the systems methyl alcohol-acetone, and heptane-benzene. VI. L. N. Bushmakin, P. Ya. Molodenko, and R. V. Litvinova. J. Appl. Chem. U.S.S.R. 26, 1213-18(1953). — See C.A. 49, 13021.   H. L. H.

LYZLOVA, R.V.

Determination of liquid-vapor equilibria with a rectification column. V. I. N. Bushmakin, R. V. Lyzlova, and P. Ya. Molodenko (A. A. Zhdanov State Univ., Leningrad). Zhur. Priklad. Khim. 26, 1208-6(1953); cf. C.A. 44, 1317e.—Examples are given to clarify the use of the rectification-column method for the detn. of the liquid-vapor equilibria of binary systems. The difficulties of the method are considerable: at least 2 columns are needed, the materials must be of the highest purity, and the procedure is very laborious. Use of the method is justifiable only in the range at which α approaches unity and where $\alpha = f(x)$ has a sharp inflection, or to check data obtained by the simple method of direct distn. The theoretical no. of plates n is first calcd. by the equation previously given (loc. cit.); the preliminary values of α needed for these calcns. are obtained from an $\alpha = f(x)$ curve detd. by direct distn. The max. n is a function of the concn. and should be calcd. for at least one point in the range of 0-10% and 2 points in the range of 90-100% of x. Experimentally this value of n is approached, in 2 loosely packed columns, increasing the packing height gradually by adding pieces of glass tubing through the reflux condenser. The smallest allowable n should be used. Data obtained by this method on the system $C_6H_6-C_6H_5Cl$ are compared with those of Bragg, et al. (C.A. 36, 6378).   I. Rencowitz

Lyzlova, R. V.

5

Liquid-vapor equilibria in the systems methyl alcohol-acetone and heptane-benzene. VI. I. N. Bushmakin, P. Ya. Molodenko, and R. V. Lyzlova (A. A. Zhdanov State Univ., Leningrad). *Zhur. Priklad. Khim.* 26, 1205-75 (1953); cf. preceding abstr.—The liquid-vapor phase equilibria of the binaries MeOH-Me$_2$CO and heptane-C$_6$H$_6$ were detd. at 760 mm. Hg by means of the rectification-column method; the first system was chosen to investigate Othmer's suggestion (cf. C.A. 22, 3560) of the possibility of a 2nd azeotropic point in the system. All materials were carefully purified and the concns. detd. by the refractive index. The azeotropic point in the MeOH-Me$_2$CO binary was located at 77.4 mol. % Me$_2$CO in the liquid phase; it was approached from the 77 and 78% liquid phase with a column of n = 10. The curve n vs. concn. was obtained to check the correctness of the α = f(x) curve; the constancy of n for 2 concns. before and after the azeotropic point was taken as proof that there was no 2nd azeotropic point in this system. The α = f(x) curve of the system heptane-C$_6$H$_6$ was obtained by direct distn. Only the point 99.31% C$_6$H$_6$ was detd. in a rectification column. In the range of 0-98% C$_6$H$_6$ n was accurate to within ± 0.01, which results in an error of less than 1 plate; in the interval of 98-100% the accuracy was to within ± 0.005.   I. Bencowitz

LYZICVA, R. V.

Calculations of rectification processes of binary mixtures in packed columns by means of the theoretical plate-concentration diagram. I. N. Bushmakin and R. V. Lyzlova (Inst. [...]) The decrease in column efficiency E, R defined as $E = n'/n$ where n' and n are the nos. of theoretical plates for a reflux ratio R and R_∞ resp. It is shown that for columns with an open packing (n for a liquor rate of 2 ml./min. set. out., 15 and 16) the exptl. data of 6 binary systems fall upon a smooth curve of E vs. R with very little scattering, for R from 3 to 45. Thus for any binary, not subject to the Kaliray effect (cf. C.A. 45, 6145f), for which n is known n for the same liquor rate can be calcd. This rule does not hold for columns with close packing (n of and 30). The following systems with the corresponding liquor rates were tested: C_6H_6-CCl_4, 1.5; dichloroethane-2,4; heptane-C_6H_6, 2.0; MeOH-MeCO, 2.0; AcOH-H_2O, 7.7. A further simplification is suggested by preliminary expts.: the difference of E for the same liquor rate at R_∞ of 2 systems, one of which may be taken as a standard, is independent of the packing and is a function of x_a only.

L. Benkowitz

SUSAREV, M.P.; LYZLOVA, R.V.

Liquid - vapor equilibrium in the system cyclohexane - cyclohexanol - cyclohexanone. Zhur. prikl. khim. 33 no.12:2786-2788 D '60.
(MIRA 14:1)

(Cyclohexane)   (Cyclohexanol)
(Cyclohexanone)

SUSAREV, M.P.; LYZLOVA, R.V.

Liquid – vapor equilibrium in the system benzene – cyclohexane – methylcyclopentane. Zhur. fiz. khim. 36 no.3:437-442 Mr '62.
(MIRA 17:8)

1. Leningradskiy universitet imeni Zhdanova.

MORACHEVSKIY, A.G.; SMIRNOVA, N.A.; IYZLOVA, R.V.

Phase equilibria in the ternary systems isobutyraldehyde –
isobutyl alcohol – water and isovaleraldehyde – isobutyl alcohol –
water. Zhur.prikl.khim. 38 no.6:1262-1267 Je '65.

(MIRA 18:10)

1. Leningradskiy gosudarstvennyy universitet imeni A.A.Zhdanova.

Ca

Role of the nervous system in the regulation of the absorptive processes of carbohydrates in the animal organism. N. N. Blokhin and S. N. Lyalova (Lenin Univ., Leningrad). Byull. Eksptl. Biol. Med. 22, No. 4, 21-3 (1946).—Dogs were prepd. by London's technique of angiostomy with a cannula in the portal vein. The glucose contents of arterial blood from the femoral artery and of venous blood from the portal vein were detd. prior to the introduction of 2.5 g. of glucose per kg. into the gastrointestinal tract and at various time intervals thereafter following the injection of calcium gluconate (I) or potassium phosphate (II) into the subarachnoid space. II, which acts on the sympathetic centers, was found greatly to increase the rate of absorption of glucose. The max. blood levels of glucose were attained in 1/4 hr. instead of the 1-1 1/2 hrs. required when no salt was injected, and a max. arterial-venous difference of 93 mg. % was reached. I, which acts on the parasympathetic centers, caused a marked delay in the rate of absorption; it resulted in very small arterial-venous differences. The absorption curve in the latter instance is similar to that shown by animals under anesthesia, in which case it has been established that the absorption of glucose becomes a simple diffusion process.   Eugene Roberts

ASM-SLA   METALLURGICAL LITERATURE CLASSIFICATION

LYZLOVA, S.N.

Quantitative correlations in the formation of high-energy phosphate
bonds under conditions of aerobic metabolism in the heart muscle.
Uch.zap.Len.un.no.138:128-147 '52.   (MLRA 9:6)

1.Iz kafedry biokhimii Leningradskogo gosudarstvennogo universiteta
imeni A.A.Zhdanova.
          (MUSCLE) (PHOSPHORYLATION)

LYZLOVA, S.N.

VLADIMIROV, G.Ye.; VLASOVA, V.G.; KOLOTILOVA, A.I.; LYZLOVA, S.N.;
PANTELEYEVA, N.S.

Determining the free energy of the hydrolysis of adenosintriphosphoric
acid according to the equilibrium constant of the hexokinase reaction
[with summary in English]. Biokhimiia 22 no.6:963-970 N-D '57.

(MIRA 11:2)

1. Kafedra biokhimii Leningradskogo gosudarstvennogo universiteta im.
A.A.Zhdanova.
            (ADENYLPYROPHOSPHATE,
                free energy of hydrolysis, determ. according to
                equilibrium constant of hexokinase reaction (Rus))
            (TRANSPHOSPHORYLASES,
                hexokinase reaction equilibrium constant in determination
                of ATP free energy of hydrolysis (Rus))

equil. const. of the hexokinase reaction, with P^{32} as a tracer. The mean value of the free energy change of the hexokinase reaction is −3.2 kcal./mole, and −6.8 kcal./mole for the free energy of hydrolysis of ATP. The authors claim these values are more reliable than previous ones because they are in accordance with new values for the heat of hydrolysis of ATP, which is −4.7 kcal./mole as compared to a previous value of −12 kcal./mole. It is nearly equal to the heat of hydrolysis of pyrophosphate and trimetaphosphate, having −5.8 and −6.2 kcal./mole, resp.   S. P. Marian.

USSR / Human and Animal Physiology. Metabolism. Carbo-   T
        hydrate Metabolism.

Abs Jour: Ref Zhur-Biol., No 22, 1958, 101680.

Author : Lyzlova, S. N.; Panteleyeva, N. S.
Inst   : Leningrad State University
Title   : The Peculiarities of Phosphorus-Carbohydrate Metab-
        olism of the Skeletal Muscle Under Various Functional
        Conditions.

Orig Pub: Uch. zap. LGU, 1957, No 222, 297-311.

Abstract: Experiments were conducted on the whole gastroc-
        nemic muscle (M) of the frog, in which, through pre-
        liminary injection of insulin to the animal, the
        content of glycogen was lowered from 600-2000 to
        200-900 mg/%. The O_2 consumption of such a muscle
        is increased, compared to normal; the amount of
        creatine phosphate (I) and ATP did not change. Ad-

Card 1/3

USSR / Human and Animal Physiology. Metabolism. Carbo-   T
          hydrate Metabolism.

Abs Jour: Ref Zhur-Biol., No 22, 1958, 101680.

Abstract: cific action (SA) of I in the introduction of
          P^{32} was 1-1/2-2 times higher than at rest; the
          amount and SA of ATP did not change. The contrac-
          tion induced by chloral hydrate or quinine did not
          influence the value of SA of I and ATP. -- M. S.
          Morozova.

Card 3/3

LYZLOVA, S.N.; PANTELYEVA, N.S.

Meterrecation of components of the adenylic system during tetanic
muscce contractions. Fiziol. zhur. SSSR 46 no. 9:1153-1159 S '60.
(MIRA 13:10)

1. From the Chair of Piochemistry, State University, Leningrad.
(ADENOSINE PHOSPHATES) (MUSCLE)

VLADIMIROV, G.Ye.[deceased]; LYZLOVA, S.N.; KOLOTILOVA, A.I., doktor
        biol. nauk, otv. red.; PETROVICHEVA, O.L., red.; VODOLAGINA,
        S.D., tekhn. red.

[Enzymology; basic problems concerning ferments] Enzimologiia;
obshchie voprosy ucheniia o fermentakh. Leningrad, Izd-vo
Leningr. univ., 1962. 255 p.   (MIRA 15:5)
            (Enzymes)   (Digestive ferments)

KOLOTILOVA, A.I.; LYL OV , S.N ; PANTEI YEVA, N.S.

Fifth International Biochemical Congress. Vest. LGU 1?
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            (Biochemistry- Congresses)

LYZLOVA, S.N.; PANTELEYEVA, N.S.

Isolation of free nucleotides from muscle extract by
adsorbing them on activated carbon. Vest. LGU 17 no.9:93-98
'62.   (MIRA 15:5)
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                    (CHROMATOGRAPHIC ANALYSIS)

KOLOTILOVA, A.I.; KCROVKIN, B.F.; LYZLOVA, S.N.; VAGNER, V.K.; VASILENKO,
E.T.; DZUISOV, N.K.

Free ribonucleotides and the activity of some enzymes of the
pentose phosphate cycle in the heart muscle in experimental
myocardial infaraction. Biokhimiia 28 no.1:113-121 Ja-F '63.
(MIRA 16:4)

1. Chair of Biochemistry, State University, and Biochemical
Laboratory, District Military Hospital, Leningrad.
(HEART—INFARCTION)   (NUCLEOTIDES)
(PENTOSE PHOSPHATES)

PANTELEYVEA, N.S.; LYZLOVA, S.N.; YUZHAKOVA, O.A.

Participation of ATP and creatine phosphate in the process of
muscle contraction. Vest. LGU 19 no.213109-115 '64.
(MIRA 18:1)

LYZLAVA, S.M.

Reviews. Vol. med. nkh. 10 no.5: -62 S-C '6z..
(CIA 1?:1)